

Insects and Other Invertebrates from Palmyra Atoll and Christmas Island

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The insects listed in this paper were collected during a brief visit made to Palmyra atoll and Christmas Island, in the Line Islands group, during February, 1948. A few of the identifications were made by the writer; for the others my thanks are extended to C. E. Pemberton, O. H. Swezey, R. H. Van Zwaluwenburg, D. Elmo Hardy, C. H. Edmondson, the late C. Montague Cooke, G. M. Ferris, Melville Hatch, C. H. Pope, W. J. Gertsch, C. R. Shoemaker, R. H. Arnett, B. D. Burks, A. B. Gurney, K. V. Krombein, C. F. W. Muesebeck, S. Parfin, R. I. Sailer, M. R. Smith, L. H. Weld, Willis W. Wirth and D. A. Young.

Palmyra atoll lies 90 miles south by west of Honolulu. It is a horseshoe shaped group of about 50 islets, with a total area of about 250 acres. Christmas Island is 357 miles southeast of Palmyra. It is considerably larger than the latter, measuring about 24 by 35 miles, and having an area of about 223 square miles. The average annual rainfall for the brief period of record (3 to 5 years) is 169.16 inches for Palmyra and 37.36 for Christmas. Consequently there is a great difference between the lush vegetation of Palmyra and the dry, rather barren appearance of Christmas.

O. H. Swezey in 1914 listed 18 species of insects collected on Palmyra Island by Joseph Rock and C. Montague Cooke in July, 1913 (Proc. Hawaiian Ent. Soc., 3:15-16). None of the seven species he lists by full scientific name are represented in the present collection.

In addition to the insects and invertebrates listed below, the following animals were collected on Palmyra: hermit crabs, *Coenobita perlatus* Edwards, on a beach; land shells, *Tornatellina* (*Tornatellinops*) *variabilis* (Odhner), on coconut leaves, and *Opeas gracilis* (Hutton), under a board; and four specimens of the mourning gecko, *Lepidodactylus lugubris* (Duméril and Bibron).

CRUSTACEA

Isopoda

- Alloniscus oahuensis* Buddle-Lund. Palmyra, 7 specimens; Christmas, 1.
Ligia pallida Jackson. Palmyra, 1.
 ? *Nagara* sp. Palmyra, 3; Christmas, 1.
Philoscia sp. Palmyra, 4.
 ? *Sphaerillo* sp. Palmyra, 16.

Amphipoda

- Orchestia floresiana* Weber. Palmyra.

ARACHNIDA

Araneida

Scytoidae

Scytodes longipes Lucas. Palmyra, 2.

Scytodes striatipes (L. Koch). Palmyra, 4.

Pholcidae

Smeringopus elongatus (Vinson). Palmyra, 8.

Theridiidae

Coleosoma blandum Cambridge. Palmyra.

Latrodectus geometricus Koch. Palmyra, 1.

Theridion rufipes Lucas. Palmyra, 9.

Argiopidae

Neoscona (Aranea) theisi Walckenaer. Palmyra, 13.

Tetragnatha keyserlingi Simon. Palmyra, 3; Christmas, 1.

Agelenidae

New genus and subspecies of subfamily Ageleninae. Palmyra, 1.

Heteropodidae

Heteropoda regia (F.). Palmyra, 1.

Salticidae

Hasarius adansoni (Audouin). Palmyra, 3.

Menemerus bivittatus Dufour. Palmyra, 6.

Metaphidippus n. sp. Palmyra, 14.

Plexippus paykulli (Audouin). Palmyra, 6.

Sandalodes sp. Palmyra, 4.

INSECTA

Orthoptera

Blattidae

Genus uncertain, *Balta* or near. Christmas, 1.

Cutilia soror (Brunner). Palmyra, 2.

Periplaneta americana (L.). Palmyra, 1 seen, not collected.

Periplaneta australasiae (F.). Palmyra, 2 nymphs.

Probably *Pycnoscelus surinamensis* (L.). Christmas, 1 nymph.

Acridiidae

Atractomorpha ambigua Bolivar. Palmyra, 4.

Oxya chinensis (Thunberg). Palmyra, 1.

Tettigoniidae

Conocephalus saltator (Saussure). Palmyra, 2.

Gryllidae

Cycloptilum sp. Palmyra, 2.

Speonemobius tigrinus (Saussure). Palmyra, 1.

Dermaptera

Labiduridae

Euborellia annulipes (Lucas). Palmyra, 8.

Labidura riparia (Pallas). Christmas, 2.

Corrodentia

Lepidopsocidae

Nepticulomima sp. Palmyra, 1.

Odonata

Libellulidae

Pantala flavescens (F.). Palmyra, 1.

Hemiptera

Miridae

Trigonotylus brevipes Jakowlef. Palmyra, 10, Christmas, 1 adult, 4 nymphs.

Homoptera**Delphacidae***Sogata paludum* (Kirkaldy). Christmas, 12.**Margarodidae***Icerya purchasi* Maskell. Palmyra, 10.**Pseudococcidae***Ferrisiana virgata* (Cockerell). Palmyra.*Pseudococcus brevipes* (Cockerell). Palmyra.*Pseudococcus citri* (Risso). Palmyra.**Neuroptera****Hemerobiidae***Symphorobius* sp. probably *barberi* (Banks). Christmas.**Lepidoptera****Pyalidae***Piletocera signiferalis* (Wallengren). Palmyra, 4.**Agonoxenidae***Agonoxena argaula* Meyrick. Palmyra, larvae feeding on coconut leaves**Tineidae***Opogona* sp. Palmyra, 3.**Gelechiidae***Stoeberhinus testaceus* Butler. Palmyra, 1.**Phalaenidae***Plusia chalcites* (Esper). Palmyra, 2.**Nymphalidae***Hypolimnas bolina* (L.). Palmyra, 3 seen, not collected.**Coleoptera****Carabidae**

Undet. sp. Palmyra, 7 specimens.

Hydrophilidae

Undet. sp. Palmyra, 29.

Pselaphidae

Undet. sp. Palmyra, 1.

Oedemeridae*Ananca bicolor* (Fairmaire). Palmyra, 1.*Ananca decolor* (Fairmaire). Palmyra, 3.*Sessinia livida* (F.). Christmas, 13.**Elateridae***Conoderus pallipes* (Eschscholtz). Palmyra, 1.**Cryptophagidae***Toramus* sp., or something near this genus. Palmyra, 19.**Coccinellidae***Coelophora inaequalis* (F.). Palmyra, 10.*Lindorus lophanthae* (Blaisdell). Palmyra, 1.*Diomus notescens* (Blackburn). Palmyra, 2.**Ptiliidae**

Undet. sp. Palmyra, 2 specimens.

Scarabaeidae*Saprosites pygmaeus* Harold. Palmyra, 31.**Hymenoptera****Evaniidae***Evania appendigaster* (L.). Christmas, 1.*Evania sericea* Cameron. Christmas, 2.**Eulophidae***Tetrastichus hagenowii* (Ratzeburg). Palmyra, 1.

Diapriidae*Trichopria* sp. Palmyra, 1.**Cynipidae***Kleidotoma* (*Kleidotoma*) sp. Palmyra, 1.**Formicidae***Pheidole* sp. Palmyra, 2 winged forms.**Vespidae***Polistes fuscatus* var. *aurifer* (Saussure). Palmyra, 3; Christmas, 2.**Eumenidae***Pachodynerus nasidens* (Latreille). Palmyra, 4; Christmas, 2.**Ampulicidae***Dolichurus stantoni* (Ashmead). Christmas, 1.**Sphecidae***Sceliphron caementarium* (Drury). Christmas, 1.**Megachilidae***Megachile fullawayi* Cockerell. Palmyra, 1; Christmas, 3.**Diptera****Tipulidae***Styringomyia didyma* Grimshaw. Palmyra, 4.**Tendipedidae**Species of *Tendipedini*. Palmyra, 1.**Heleidae***Dasyhelea* sp. near *hawaiiensis* Macfie. Palmyra, 5; Christmas, 7.**Dolichopodidae***Chrysosoma* n sp.? related to *leucochirus* Bezzi. Palmyra, 13; Christmas, 1.*Chrysotus javanensis* de Meijere. Palmyra, 4.**Syrphidae***Ischiodon penicillatus* Hull ? Palmyra, 4.*Tubifera* (*Lathyrophthalmus*) *arvorum* (F.). Palmyra, 3.*Volucela* (*Ornidia*) *obesa* (F.). Palmyra, 3.**Sarcophagidae***Sarcophaga peregrina* (Robineau-Desvoidy) ? Palmyra, 12.**Calliphoridae***Chrysomya megacephala* (F.). Palmyra, 5.*Phaenicia sericata* (Meigen). Palmyra, 5.**Muscidae***Atherigona excisa* (Thomson). Palmyra, 6.*Musca domestica* L. Palmyra, 2; Christmas, 1.**Tethinidae***Tethina insularis* Aldrich. Palmyra, 14; Christmas, 1.**Otitidae***Scholastes lonchifera* Hendel. Palmyra, 8.**Canaceidae***Nocticanace marshallensis* Wirth. Palmyra, 23.**Ephydriidae***Placopsidella cynocephala* Kertész. Palmyra, 5.*Hecamede persimilis* Hendel. Palmyra, 3.*Hostis guamensis* Cresson. Palmyra, 5.*Discocerina mera* Cresson. Palmyra, 14.*Psilopa* sp. near *girschneri* von Roeder. Christmas, 1.**Chloropidae***Cadrema pallida* (Loew). Palmyra, 33.**Lonchaeidae***Lamprolonchaea aurea* (Macquart). Palmyra, 4.**Hippoboscidae***Ölfersia aenescens* Thomson. Palmyra, 1.